

LDWSF
12,3,55U1

The water quality criteria are based on bioassay tests performed on a wide range of organisms.

Water quality criteria are based on total available metals and not only dissolved fraction therefore the dissolved data may be exceeding the toxic threshold.

USEPA SF



1345243

Water Quality Criteria for metals (freshwater)

Acute (1-hr average)

Chronic (4-d average)

~~Acute~~

Cu :

$$e^{(.9422[\ln(\text{hardness})] - 1.464)}$$

$$e^{(0.8545[\ln(\text{hardness})] - 1.465)}$$

[example: hardness = 50 mg CaCO₃/L \Rightarrow 9.2 µg/L]

$$6.5 \cancel{\mu\text{g/L}}$$

Pb :

$$e^{(1.273[\ln(\text{hardness})] - 1.460)}$$

$$e^{(1.273[\ln(\text{hardness})] - 4.705)}$$

Hg :

$$2.4 \mu\text{g/L}$$

$$.012$$

Zn :

$$e^{(.8473[\ln(\text{hardness})] + .8604)}$$

$$e^{(0.8473[\ln(\text{hardness})] + 0.7614)}$$

As (III)

$$360$$

~~100 mg/L hardness~~

$$190$$

As (V)

$$850 \quad (\text{L.O.E.L.})$$

$$48 \quad (\text{L.O.E.L.})$$

Cd

$$e^{(1.128[\ln(\text{hardness})] - 3.828)}$$

$$e^{(0.7852[\ln(\text{hardness})] - 3.490)}$$

Ni

$$e^{(.8460[\ln(\text{hardness})] + 3.3612)}$$

$$e^{(0.8460[\ln(\text{hardness})] + 1.1645)}$$

Cr (VI)

$$16$$

$$e^{(.8190[\ln(\text{hardness})] + 3.688)}$$

$$11$$

Cr (III)

$$e^{(.8190[\ln(\text{hardness})] + 1.561)}$$

Fe

$$-$$

$$1.0 \text{ mg/L}$$

Tin

— No criterion —

All values are µg/L unless otherwise noted.

Human health values are not included, since Lake Union is not used for drinking water supply or fishing / fish consumption.